Department of Commerce · National Oceanic & Atmospheric Administration · National Marine Fisheries Service

NATIONAL MARINE FISHERIES SERVICE INSTRUCTION [04-114-01]
[EFFECTIVE DATE]

Science and Technology
Transition Plans for Modifications to Recreational Fishing Catch and Effort Survey Methods, NMFSPD 04-114

Guidance and Procedures for the Transition Process for Modification of Recreational Fishing Catch and Effort Methods

NOTICE: This publication is available at: http://www.nmfs.noaa.gov/op/pds/index.html

OPR: F/ST1 (D. Van Voorhees) **Certified by:** F/ST (N. Cyr)
Type of Issuance: Initial

SUMMARY:

The document specifies guidance and procedures to implement Policy Directive 04-114 which addresses the transition process for modification of methods to estimate recreational fishing catch and effort under the Marine Recreational Information Program. It establishes and describes the role and responsibilities of the MRIP Transition Team, the general transition approach when new survey designs are implemented, and provides an example of a transition plan outline. It also describes the Terms of Reference for the Transition Team.

Signed _____/s/_____12/4/2015___
Ned Cyr, Ph.D. Date
Director, Office of Science and Technology

Introduction

When Congress reauthorized the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq.) was reauthorized in 2006, it added Section 401(g) which requiresd that the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) to establish a program to improve the quality and accuracy of information generated by the Marine Recreational Fishery Statistics Survey. See 16 U.S.C. § 1881(g)(3). It further required that the program take into consideration, and, to the extent feasible, implement the recommendations of the National Research Council's 2006 report, Review of Recreational Fisheries Survey Methods. Accordingly, the Marine Recreational Information Program (MRIP) has been developing new and modified survey designs for tracking recreational fishing effort and catch and to provide more accurate and timely statistical estimates of cumulative totals throughout each fishing season.

The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) Marine Recreational Information Program (MRIP) recognized the need to appropriately transition from current to new recreational fishing surveys, in light of substantial design improvements. This procedures guidance implements Policy Directive (PD) 04-114, for transition to new recreational fishing catch and effort survey methods. The objective of the policy is to ensure the comparability of long-term time series of recreational fishery catch and effort statistics as new, more statistically valid survey designs are implemented to replace legacy survey designs and the efficient integration of appropriately calibrated recreational catch and effort statistics into fishery science products and fishery management measures.

PD 04-114 provides that a Transition Plan must be prepared for the implementation of any modifications of survey sampling or estimation methods that may result in consistently higher or lower statistical estimates of recreational fishing catch or effort. The MRIP Executive Steering Committee (ESC) established the MRIP Transition Team to develop and recommend standardized processes for transitioning from historical estimates to estimates derived from improved sampling and estimation designs. This procedure establishes and describes the role and responsibilities of the Transition Team and the general transition approach when new survey designs are implemented. A transition plan outline is provided at the end of this document, to be used as a general guide for the Transition Team.

Transition Team Role and Responsibilities

The Transition Team is co-led by NMFS Office of Science and Technology and Office of Sustainable Fisheries. The team comprises representatives from NMFS, the regional fishery management councils, the interstate marine fisheries commissions, and several state agencies. In order for a new survey method to be implemented, historical catch statistics first need to be converted into the same 'currency' as the new estimates of recreational fishing catch and effort. The Transition Team develops and executes appropriate transition plans to ensure this happens. The Transition Team should establish processes that will enable scientists and fishery managers to make "apples to apples" comparisons between new and historical catch statistics, providing a framework that decision-makers can use for integrating new data into science and management activities at the regional and state level. The Transition Team plays an important role in coordinating consistent approaches and methods for councils, interstate commissions, and NMFS Regions to apply to recreational catch estimates derived from new or improved survey designs for fishery management purposes, including:

1. Determining the status of exploited stocks.
2. Setting annual catch limits.
3. Monitoring catch against catch limits.
4. Assessing the need for and selection of accountability measures.
5. Conducting analyses leading to the adoption of recreational fishing regulations.

General Transition Approach

The first step in the process is to develop a transition plan for the new design that describes the most appropriate processes for transitioning from historical estimates to estimates derived from improved sampling and estimation designs. The MRIP Transition Team will establish sub-groups to address region-specific issues. Membership of the subgroups will be comprised of existing Transition Team members from the appropriate region(s) and any other staff those members deem appropriate, and will be convened as needed for transition planning.

Several steps must be taken before estimates based on any new design can be used effectively in the management process.

1. **Benchmarking:** The newly designed survey should be conducted side-by-side with the legacy survey, when feasible, to allow measurement and evaluation of consistent differences in the statistical estimates produced. During this benchmarking period, statistical estimates produced by the legacy design are generally still considered the "best scientific information available" for use in fishery stock assessments, establishing overfishing limits and annual catch limits (ACLs), monitoring catches relative to ACLs, and making management decisions.
2. **Calibration model development:** Differences between new design and legacy design estimates that are consistently unidirectional, and significant increases in the variances of estimates resulting from new designs, should be evaluated to determine possible sources of bias to explain those differences. In addition, literature research should be conducted to assess how biases identified in the legacy design would most likely have changed over time. Based on the information gained, one or more calibration models should be developed and evaluated for possible use in correcting past catch statistics. Alternative models should be considered and, if feasible, one should be selected as the preferred model, subject to validation by an external peer review. Independent, external peer reviews of calibration models will be conducted following development of the models and prior to re-estimation of catch histories. The peer review process will be conducted consistent with established agency practice, and will comply with Information Quality Act requirements. Appropriate Transition Team members from NMFS and/or regional partners will be involved in developing a statement of work for each review.

3. **Re-estimation of historical catch statistics:** Once a calibration model has been developed, independently reviewed, and approved, the model should be used to generate a corrected time series of recreational catch statistics that were generated by the legacy design. The revised time series should immediately be made available to domestic fishery stock assessment scientists and fishery managers.

4. **Incorporation of new estimates into stock assessments and economic analyses:** The revised catch and effort statistics derived from the calibration model should be incorporated into stock assessments and economic analyses as soon as possible to provide the most accurate assessments of stock status, new ACLs for use in fisheries

management, and updated information relevant to sector allocations and economic impacts. Stocks with very substantial mortality levels due to recreational fishing (relative to that caused by commercial fishing) should be identified as "key stocks" and prioritized for assessment scheduling. Depending on the magnitude of the estimation changes and potential disruption of the management process, assessments scheduled for key stocks may have to be moved to earlier dates while those scheduled for non-key stocks are moved to later dates.

5. **Incorporation of new estimates and ACLs into management actions:** As soon as revised (?) catch statistics and new assessment results based on revised catch statistics become available, management should begin to use both for decision making. If revised statistics are available but new assessments are not, then managers may need to continue using the statistics based on the legacy design until new assessment results are available. In years when the legacy design is no longer being conducted, the approved calibration model should be used to convert catch estimates based on the new design into estimates that are compatible with the legacy design for use in management.

An example of a plan outline is as follows:

I. Executive Summary
II. Introduction and Purpose
III. Description of Approach and Timeline
IV. Potential Stock Assessment Impacts and Schedule
V. Potential Management Impacts and Schedule
VI. Identification of Unknowns
VII. Lessons Learned
VIII. Appendices

Attachments

Attachment A: Example Terms of Reference for the Marine Recreational Information Program (MRIP) Transition Team

National Oceanic and Atmospheric Administration
National Marine Fisheries Service (NOAA Fisheries)

Marine Recreational Information Program (MRIP) Transition Team

Terms of Reference
April 14, 2014

1. Develop and recommend a standardized process for transitioning from historical estimates to estimates derived from improved sampling and estimation designs. The recommended process will describe and provide consistent approaches and methods for Councils, Interstate Commissions, and NOAA Fisheries Regions to apply to recreational catch estimates derived from new or improved approaches for:

a) Setting annual catch limits;
b) Monitoring catch against catch limits;
c) Assessing the need for and selection of accountability measures; and
d) Conducting analyses leading to the adoption of recreational fishing regulations.

The process description should include flow diagrams and timelines for illustrative purposes.

2. Develop and recommend methods to be used to compare legacy estimates to estimates produced by using new or modified MRIP designs in a statistically robust manner.

3. Determine when calibration or other means of linking legacy data sets with MRIP-derived data sets are feasible and necessary, and identify the requirements and methods for making such linkages.

4. To minimize disruptions to stock assessments, catch monitoring, and management regulations, establish guidelines, in consultation with Regional Implementation Teams, to facilitate decisions on when and how implementation of changes to MRIP survey methods are introduced.

5. Report to the Executive Steering Committee (ESC) on the status of the transition and any impediments to progress, along with suggestions for overcoming the impediments, at least on an annual basis.

6. All recommendations will be submitted to the MRIP ESC for approval and conveyance to the NOAA Fisheries Science Board and Regulatory Board.

In carrying out its work under these Terms of Reference, the Transition Team will consult with the MRIP Regional Implementation Teams and with the affected NOAA Fisheries Regional Offices and Fisheries Science Centers, the NOAA Fisheries Office of Sustainable Fisheries and Office of Science and Technology, and the States, Interstate Commissions, and Regional Fishery Management Councils. The Transition Team may establish one or more Work Groups to develop proposed processes and analytical methods.